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## **Results from ALICE**

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**Abstract.** ALICE, the dedicated heavy-ion experiment at the LHC, has also a rich pp program benefiting from its low material budget, low magnetic field, and its extensive particle identification capabilities. The talk presents recent measurements of relevance for cosmic-ray physics. In particular, ALICE measured the inelastic, single- and double-diffractive cross-sections in pp collisions at  $\sqrt{s} = 0.9$ , 2.76, and 7 TeV [1]. Further, the charged-particle pseudorapidity distribution  $(dN_{ch}/d\eta)$  in Pb–Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV was measured over a large pseudorapidity range ( $-5.0 < \eta < 5.5$ ) using collisions from displaced vertices [2]. Potential direct contributions of ALICE to cosmic-ray physics are also reviewed [3].

## References

- ALICE Collaboration, "Measurement of inelastic, single- and double-diffraction cross sections in proton-proton collisions at the LHC with ALICE", arXiv:1208.4968
- [2] ALICE Collaboration, "Centrality dependence of the pseudorapidity density distribution for charged particles in Pb-Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV", arXiv:1304.0347
- [3] CERN Courier, ALICE looks to the skies, 18.07.12, http://cerncourier.com/cws/article/cern/50219

## Slides

The slides of the talk can be found on the website of the symposium ISVHECRI 2012: https://indico.desy.de/conferenceOtherViews.py?view=standard&confId=4594

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